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January 30, 2007

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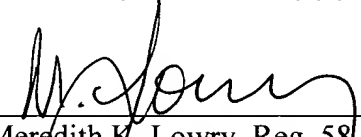
RE: U.S. Patent Application No. 09/844,526
DEEP CRYOGENIC TEMPERING OF BRAKE COMPONENTS
Our File No. 016144

Dear Sir:

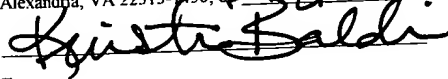
In response to the office communication dated January 4, 2007, please find the enclosed supplemental Pages 1-8 of Appellant's Brief in response to the concerns of the Examiner.

Respectfully submitted,

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Docket No. 016144
Customer No. 30,767

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Robert Woolley Brunson
Appl. No. : 09/844,526
Filed: : 4/27/01
TC/A.U. : 1742
Examiner : Ip, Sikyin

Confirmation No.: 3732

APPELLANT'S BRIEF
(37 C.F.R. § 41.37)

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Dear Sir:

This brief is in furtherance of the Notice of Appeal, filed in this case on November 21, 2005.

The fees required under § 1.17 and § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF. Appellant does not request an oral hearing.

This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. § 41.37(c)):

- I. REAL PARTY IN INTEREST
- II. RELATED APPEALS AND INTERFERENCES
- III. STATUS OF CLAIMS
- IV. STATUS OF AMENDMENTS
- V. SUMMARY OF CLAIMED SUBJECT MATTER

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Krista Bahl

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

VII. ARGUMENT

A. REJECTIONS UNDER 35 U.S.C. § 112 (37 C.F.R. § 41.37(c)(1)(vii))

B. REJECTIONS UNDER 35 U.S.C. § 103

C. SUMMARY ARGUING PATENTABILITY OF ALL CLAIMS

VIII. CLAIMS APPENDIX

IX. EVIDENCE APPENDIX

X. RELATED PROCEEDINGS APPENDIX

The final page of this brief bears the practitioner's signature.

I. REAL PARTY IN INTEREST (37 C.F.R. § 41.37(c)(1)(i))

The real party in interest in this appeal is Brian Morrison, an Arkansas resident residing at 2407 Peach Tree Drive, Little Rock, Arkansas 72211, by virtue of an assignment recorded February 16, 2006, at Reel 017586, Frame 0532.

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 41.37(c)(1)(ii))

There are no appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS (37 C.F.R. § 41.37(c)(1)(iii))

The status of the claims in this application are:

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims 1-8 have been canceled, claims 9-24 have been withdrawn, claims 25-30 stand rejected under 35 U.S.C. §103 and claims 26-27 stand rejected under 35 U.S.C. §112, second paragraph.

B. STATUS OF ALL THE CLAIMS

Claims 1-24 were originally presented. In a telephone conference with the Examiner, original claims 9-24 were withdrawn from consideration as being drawn to a non-elected invention. Claim 1 was subsequently canceled by Applicant.

The Examiner maintained the rejection of claims 2-8, which became the subject of an appeal on August 11, 2003. Claims 2-8 were subsequently canceled after a non-final office action dated March 24, 2004 and claims 25-30 were presented for review. Claims 25-30 are currently rejected under 35 U.S.C. §103 and claims 26-27 are currently rejected under 35 U.S.C. §112, second paragraph.

C. CLAIMS ON APPEAL

Claims 25 – 30 are the subject of this appeal.

IV. STATUS OF AMENDMENTS (37 C.F.R. § 41.37(c)(1)(iv))

An amendment was filed subsequent to the rejection of June 27, 2005. This amendment was made in response to a non-final action to first, remove a §112 rejection for Claims 26 and 27 by removing the second step (g) and relettering as step (j) and second, to rewrite dependent Claim 30 into independent Claim 25 to overcome a §103 rejection for claims 25-30. This amendment was denied entry by the examiner for allegedly raising new issues and for failing to reduce issues for appeal. No other amendments have been filed subsequent to that denial.

V. SUMMARY OF CLAIMED SUBJECT MATTER (37 C.F.R. § 41.37(c)(1)(v))

The present invention addresses the perceived need in the art for an improved process of treating brake rotors to produce improved molecular structures and enhanced structural properties. The cryogenic process modifies the molecular structure of a brake rotor to increase the useable life span and tolerance of the brake rotor.

The present invention is a process which comprises first determining a mass and cross sectional area of the brake rotors, followed by placing the brake rotors, which are at 100° F, within a cryogenic processing chamber and then cooling the brake rotors at a descent rate to temperatures of approximately -300° F. (Claims 25, 27; Paragraph 20). The decreased temperature is maintained for a stay time before then heating the brake rotors at an ascent rate to 300° F. (Claim 25; Paragraph 21 – 22). The increased temperature is maintained for a post temper time before lowering the temperature to room temperature at a cool down rate. (Claim 25; Paragraph 23). The process continues by raising the temperature a second time at an ascent rate to 300° F and maintaining the temperature for a post temper time before lowering the temperature to room temperature at a cool down rate. (Claim 25; Paragraph 23). The descent rate, the stay time, and the ascent time of the present process are all functions of the mass and cross sectional area of the brake rotors. (Claim 25; Paragraph 25). More than one, and preferably three, post temper cycles or steps are employed. (Claim 26; Paragraph 23).

The claimed invention also involves having the brake rotors be at -100° F before the multiple post temper steps, with the post temper steps occurring within a temper oven. (Claims 28, 29; Paragraph 22).

Moreover, the claimed invention involves introducing gaseous nitrogen into the cryogenic processing chamber to cool the brake components. (Claim 30; Paragraph 20).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL (37 C.F.R. § 41.37(c)(1)(vi))

Whether the invention of claims 26-27 is unpatentable under 35 U.S.C. §112 in light of Applicant's arguments in response to the remaining grounds of rejection to be reviewed on appeal.

Whether the application for the invention of claims 25-30 currently named joint inventors.

Whether the invention of claims 25 – 30 is unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,865,913 to Paulin et al. in view of U.S. Patent No. 5,447,035 to Workman et al..